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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,136	03/19/2004	Alvise Sartori	APV31683	6373
7590 09/27/2005			EXAMINER	
Stevens, Davis, Miller & Mosher, L.L.P. Suite 850 1615 L Street, N.W. Washington, DC 20036			LUU, THANH X	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/804,136

Applicant(s)

SARTORI ET AL.

Examiner

Thanh X. Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>07/2005; 03/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the circuit having the N-channel first transistor and P-channel second, third and fourth transistors; the joint between an insulated N-type diffusion and a P-type substrate defined an area emptied of free loads must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

3. A preliminary examination of this application reveals that it includes terminology which is so different from that which is generally accepted in the art to which this invention pertains. For example: "ideal key", "tension signal", "piloted", "pilot tension" and "inversely polarized" are not common terms in the electro-optical sensor art.

Applicant is required to provide a clarification of these matters or correlation with art-accepted terminology so that a proper comparison with the prior art can be made. Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

It is unclear to one of ordinary skill in the art how to make a current conversion circuit that converts current into tension or what it means for a transistor to be used as an ideal key and piloted with a variable tension.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-15, it is unclear in its given context what it means for a transistor to be used as an ideal key and piloted with a variable tension, or what a pilot tension is.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 6, 10, 12 and 13, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Hagihara (EP 1041818).

Regarding claims 1, 6, 10, 12 and 13, Hagihara appears to disclose the claimed invention since Hagihara's circuit is similar to the Figure of the claimed invention. Hagihara discloses (see Fig. 40) a photosensitive reception means (PD), a current conversion circuit (T1, T3) and an amplification and reading circuit (T2, T5), wherein the current conversion circuit comprises a P-channel transistor (T3) that resets and is able to put the photosensitive element into reset (initialization) and integration (accumulation of charge). Further as understood, the device has an N-type diffusion and a P-type

silicon substrate and the photosensitive element is able to be integrated onto a substrate, to achieve a microchip or linear or matrix multiple cell sensor.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2-5, 7-9, 11, 14 and 15, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagihara.

Regarding claim 9, Hagihara discloses the claimed invention as set forth above. Hagihara does not specifically disclose the response of the photosensitive element as claimed. However, the claimed response is well known and choosing the specific sensitivity and response of a photosensitive element requires only routine skill in the art. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to choose the claimed response in the apparatus of Hagihara to obtain a desired improved detection result.

Regarding claims 15, 7 and 11, Hagihara discloses (see Fig. 13) the claimed invention as set forth above. Hagihara also disclose an N-channel first transistor (T1). Hagihara does not specifically disclose the other transistors are P-channel transistors. However, Hagihara also teaches (see Fig. 22) mixing N-channel and P-channel transistors for a desired circuit. Hagihara thus recognizes that choosing the type of transistor is a matter of design choice. Thus, it would have been obvious to a person of

ordinary skill in the art at the time the invention was made to provide the P-channel transistors as claimed in the invention of Hagihara to obtain a desired circuit for ease in its manufacture.

Regarding claims 2-5, 8 and 14, Hagihara discloses the claimed invention as set forth above. Hagihara does not specifically disclose the other transistors are N-channel transistors. However, Hagihara teaches (see Fig. 22) mixing N-channel and P-channel transistors for a desired circuit. Hagihara thus recognizes that choosing the type of transistor is a matter of design choice. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the N-channel transistors as claimed in the invention of Hagihara to obtain a desired circuit for ease in its manufacture.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hyncek et al. (U.S. Patent 6,323,479) discloses a similar logarithmic response detector.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thanh X Luu
Primary Examiner
Art Unit 2878

09/2005